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ABSTRACT

Research has shown that, when administered properly, kindergarten readiness screening results are associated closely with future school success. The Dallas Preschool Screening Test (DPST) is one of many such instruments used to determine school readiness and predict school success. A study sought to determine the effectiveness of the DPST in predicting kindergarten success. For this analysis, kindergarten success was defined as ratings given to each child on kindergarten evaluation forms. The study examined scores for 40 kindergarten children in the Fostoria City Schools, Ohio, on the DPST given in the spring before school began and transposed scores on the same group's kindergarten evaluation forms given each 9-week period during the school year. Using the Pearson Correlational test, the study found significant correlations in the psychological, visual, and overall total areas. In the auditory, language, and motor areas, no significant correlations were found. Results indicate that the DPST is not an effective predictor of kindergarten success overall in the different areas of development. (HTH)

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The Value of the Dallas Preschool Screening Test in Predicting Success on Kindergarten Evaluation Forms

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Abstract

The purpose of this study was to determine the effectiveness of the Dallas Preschool Screening Test. Scores of forty kindergarten children on the Dallas Preschool Screening Test given in the spring before school began and transposed scores on the same group's kindergarten evaluation forms given each nine week period during the school year were examined in this study. Using the Pearson Correlational test, it was discovered that significant correlations occurred in the psychological, visual, and overall total areas. In the auditory, language, and motor areas significant correlations were not found to occur. It was then concluded that the Dallas Preschool Screening Test is not an effective predictor of kindergarten success overall in the different areas of development.

The Value of the Dallas Preschool Test in Predicting Success on Kindergarten Evaluation Forms

Screening young children to determine readiness for kindergarten is used in most school systems throughout this country. These assessments are often used to make critical decisions about a child's educational future. Questions surround the accuracy of these tests in predicting a child's potential for success in the kindergarten classroom. According to Meisels (1987), the information gathered from these assessments should be used for these purposes:

1. To determine the skills a child has already developed.
2. To predict children who are at-risk for learning difficulties.
3. To determine if a child is developmentally ready for kindergarten.

In theory, these assessments were originally designed to facilitate planning of curriculum and instructional strategies. In practice, these assessments are often used solely to determine a child's readiness for kindergarten. Research has shown that, when administered properly, screening results are associated closely with future school success. The Dallas Preschool Screening Test (DPST) is one of many instruments used to determine school readiness and predict school success.

Statement of the Problem

The purpose of this study was to determine the effectiveness of the Dallas Preschool Screening Test in predicting kindergarten success. For this analysis, kindergarten success was defined as ratings given to each child on kindergarten evaluation forms.

Review of Related Literature

Freeman (1990) states that the concept of "readiness for school" has brought to the educational forefront many important issues. Among these are the strict set of standards to which children must conform in order to be determined eligible to attend kindergarten. First and foremost, a child has to be of legal age to enter school. Considering the wide range of individual differences found in five year old children, should some be penalized and held back while others are rewarded and allowed to go on? Walsh (as cited in Freeman, 1990) reported, "Policy is less about improving early schooling and more about sorting children." Wood, Powell, and Knight (1984) indicate in their studies that developmental age is a more conclusive predictor of success or failure in kindergarten than chronological age. They argue that the key to reducing failure is to modify kindergarten curriculum to accommodate differences in children's levels of readiness.

Freeman (1990) cites basically three types of assessments used to evaluate children for kindergarten entrance. They consist of:

1. developmental screening - used to identify children who may need special services and/or further diagnosis
2. readiness testing - assessment of a child's level of preparedness for a specific academic or preacademic program
3. standardized achievement testing - used to measure the extent to which a child has mastery over certain skill areas.

Unfortunately, there is widespread abuse of assessments. Some assessments do not have any established reliability and validity. With the changing growth of children, it is essential that assessments are stable, accurate and are used only for their intended purpose.

According to Roth, McCaul, and Barnes (1993), assessments oftentimes provide different results when there are large discrepancies in the test givers and even larger discrepancies in the socio-economic and ethnic backgrounds of the test takers. Furthermore, there is indiscriminate substitution of readiness tests for screening tests. Because of the type of information they yield and their lack of predictive validity, readiness tests cannot be considered developmental screening tests. Readiness tests traditionally are used for curriculum planning, though several researchers have in the past emphasized a need for a linkage between screening batteries and instruction (Ysseldyke, Thurlow,

and O' Sullivan, 1987).

With regard to the DPST specifically, Mann (1984), in her study of the predictive validity of this instrument, gives the screening instrument a lukewarm reception as a premier screening tool in predicting kindergarten success or failure. Her research suggests that it should be used in conjunction with some other measures and that its use as a predictor of later school success is questionable.

Many researchers agree that kindergarten readiness should be determined by developmental age rather than chronological age. They also feel that perhaps kindergarten curriculums need to be multi-leveled in order to adapt to the differences in children's abilities. Some studies suggest that screening instruments, including the DPST, need to be used in tandem with other measures such as parent interviews and observations in order to give a more accurate view of the child's readiness for school. Taking these different views into consideration, there is some doubt as to the DPST's use as a good predictor of kindergarten success.

Statement of Hypothesis

While very little research has been done on the Dallas Preschool Screening Test, it suggests that it is not a valid predictor in determining kindergarten success when used alone. It was hypothesized that the

Dallas Preschool Screening Test would not be a valid predictor of kindergarten success in all of the areas that the DPST provides assessment information.

Method

Subjects

The forty subjects for this study were selected from two kindergarten classrooms in two separate elementary buildings within the Fostoria City School System. Fostoria's population is 17,000 and is comprised of lower to middle class residents with approximately 10% African-American and 5% Hispanic. The two kindergarten classrooms were selected for their fairly heterogeneous groupings, coming from many different areas in Fostoria. The two kindergarten teachers are similar in age and teaching styles. They both incorporate developmentally appropriate activities into their curriculums. Their educational backgrounds are almost identical with both doing undergraduate and graduate coursework at Bowling Green State University.

Instruments

The Dallas Preschool Screening Test and the kindergarten evaluation form for Fostoria City Schools were used as the correlational instruments for this study.

Developed in 1974, the DPST was designed to investigate learning pathways and includes five distinct areas: psychological, auditory, visual, language, and motor with fifteen test items total. Its original purpose was to identify insufficient development in specific areas and to predict children "at-risk" for kindergarten achievement. It did not measure identification of letters, auditory discrimination, rhyming, or passage comprehension as some screening tools do. The DPST, though, offered a vehicle with little cultural weight and limited items to accommodate the attention spans of younger children. At the tests inception, it was used on several children with a post-test given to determine effectiveness. Its diagnostic ability at that time was considered excellent even though reliability of diagnostic procedures always involves some amount of error.

Norming the DPST was done in the Dallas suburb of Richardson, Texas with three thousand children aged three to six years from upper-middle class families. Over half of the children were enrolled in private schools and one hundred African-American children were included in the sample. These children were then retested after a two week interval. The test-retest reliability was ($r=.81$) and was statistically significant at the .001 level. It appeared to be a valid assessment even though the effectiveness in measuring five different areas was not known.

The kindergarten evaluation form was developed by a group of Fostoria kindergarten teachers and the district's curriculum coordinator five years ago. It is divided into six categories: physical development, personal and social development, work habits, reading readiness, language arts readiness, and math readiness. The evaluation criteria consists of N (needs improvement), I (improving), and S (satisfactory).

Procedure

The DPST scores were compiled for forty kindergarten children who had undergone prekindergarten screening in May before the beginning of the new school year 1992-93. The kindergarten evaluation forms for the same children were also studied and the evaluation criteria used was transformed into numerical values. "N" equaled 1, "I" equaled 2, and "S" equaled 3. These numerical values were then used to correlate with subtotals in the areas of psychological, auditory, visual, language, and motor. The scores for each child were charted in each area of the DPST and in each area of the kindergarten evaluation form.

Results

The Pearson Correlational test (α = .05) was used to compare the scores of the children on the DPST with their scores on the kindergarten evaluation form. Each evaluation area was considered as well as the total

scores on each assessment.. It was found that correlations were significant (see Table 1) in the psychological and visual areas and in the total scores. Correlations were not significant in the auditory, language, and motor areas. Consequently, the original hypothesis of the Dallas Preschool Screening Test not being a valid predictor of kindergarten success in all areas that the DPST provides assessment information was supported.

Place Table 1 about here.

Discussion

The results of this study support the original hypothesis: the Dallas Preschool Screening Test would not be a valid predictor of kindergarten success in all of the areas that the DPST provides assessment information. There are significant correlations in only three evaluation areas of evaluation. This would not provide accurate predictions due to the fact that three other areas did not have significant correlations with kindergarten evaluations. A study on the components of the psychological, visual, auditory, language, and motor areas and the reasons some are more predictive on the DPST than others might lead to some enlightening

information.

With the relatively low number of subjects and the small town suburban setting, the results obtained would not generalize well to other kindergarten classrooms. More in-depth research needs to be conducted in a variety of school environments using the Dallas Preschool Screening Test to ascertain the unreliable predictive quality of this instrument. Further study of the DPST is also needed to determine if it is actually a valid and reliable assessment.

Mann (1984) supports the findings that the DPST has little predictive value in most areas and should be used in conjunction with some other measure or measures. Its use as a predictor of success is definitely questionable. There are many factors which influence a child's success in school in addition to the skills measured in the DPST. Therefore, it is recommended that future research focus on combining other forms of assessing children's readiness for kindergarten with the Dallas Preschool Screening Test.

Table 1
Correlations: Dallas Preschool Screening Test scores with corresponding Kindergarten Evaluation Scores (n=40)

Evaluation Areas	M		S.D.		r
	DPST	Eval	DPST	Eval	
Psychological	44.075	22.475	10.944	2.592	.3251*
Auditory	35.300	2.675	13.520	.616	.1384
Visual	53.450	23.250	8.118	1.750	.5874*
Language	44.125	16.925	8.832	2.030	.2465
Motor	24.625	42.825	5.466	3.948	.1181
Total	201.575	108.150	38.409	8.592	.3170*

*= significant at .05 level and beyond, two-tailed test of significance

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